



Real World Science

10 years of co-development & partnership

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Real World Science

The Real World Science (RWS) programme is partnership of museums with natural history collections and galleries who are committed to developing secondary science programming.

- **The Natural History Museum**
- **Oxford University Museum of Natural History**
- **The Great North Museum: Hancock**
- **The Manchester Museum**
- **Stoke-on-Trent Museums**
- **Leeds Museums & Galleries**
- **Wollaton Hall, Nottingham**
- **Peterborough Museum**

The RWS partnership was formed in 2004 with the aim of engaging and inspiring school students through access to world-class natural science collections combined with scientific and educational expertise.

Over **126,035** students have participated in the lifetime of the programme and in 2012/13 **26,000** students participated across the partnership.



Real World Science - Aims

- To unlock the potential of natural science collections to enhance secondary science teaching and learning
- To develop learning opportunities, inspiring further study and building scientific literacy
- To nurture and grow the partnership, building a community of practice
- To share acquired knowledge within the museum education community
- To increase the number of students and teachers using museums with natural history collections to support science teaching and learning



Consultation

Teachers wanted strong curriculum links.

Subject areas listed:

Life Sciences

- Variation
- Classification
- Adaptation
- Evolution/Fossils
- Genetics
- Biodiversity/variety
- Human impact & environment

Earth Sciences

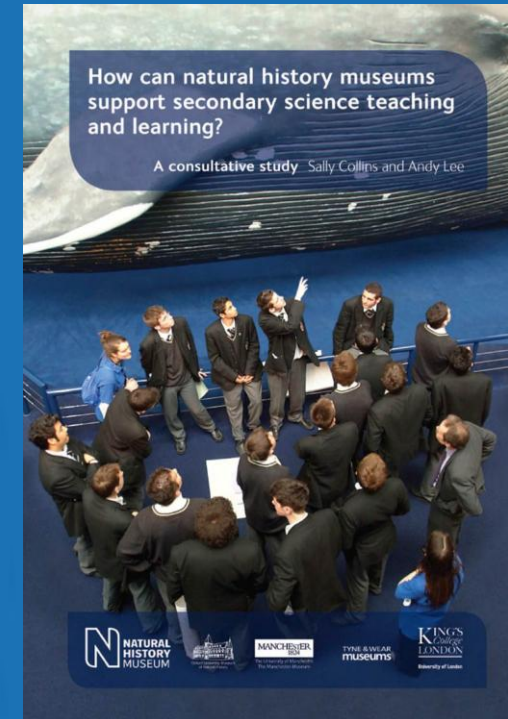
- Rock Cycle
- Plate Tectonics
- Natural Hazards

Ideas and evidence

- Historic and contemporary case studies

How Science Works

- Application of contemporary science
- Solving a scientific problem
- Collecting and evaluating data
- Drawing conclusions





National Projects – The Great Debate

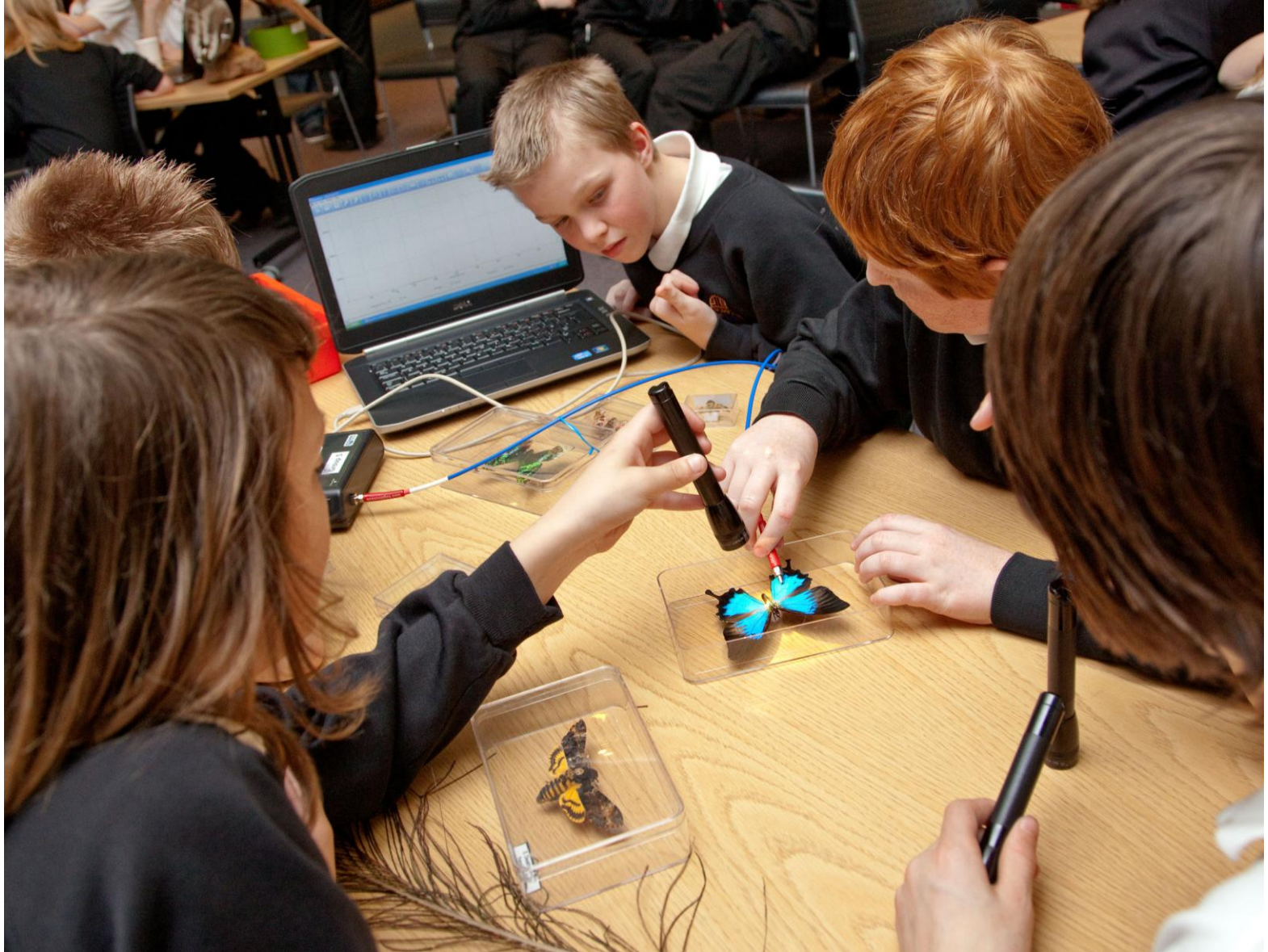




National Projects - How Science Works

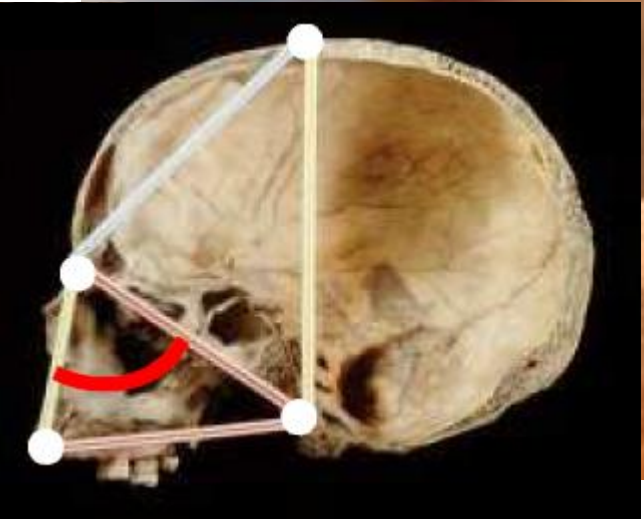


National Projects – The Colour Of Nature

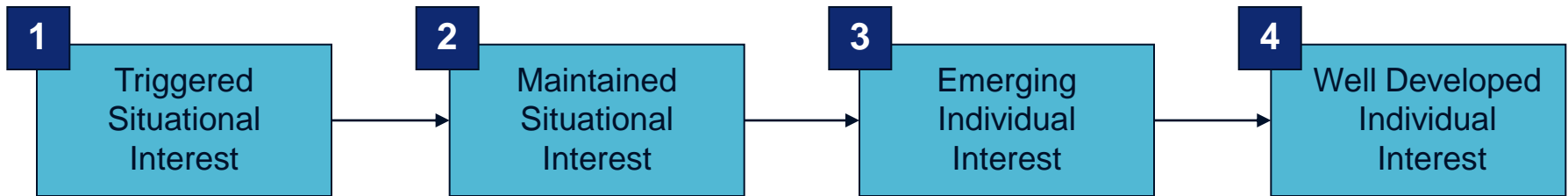




National Projects – Human Evolution



Four-Phase Model of Interest Development



A psychological state of interest – a person being engaged physically, cognitively or emotionally with the object of his/her interest

Characterised by:

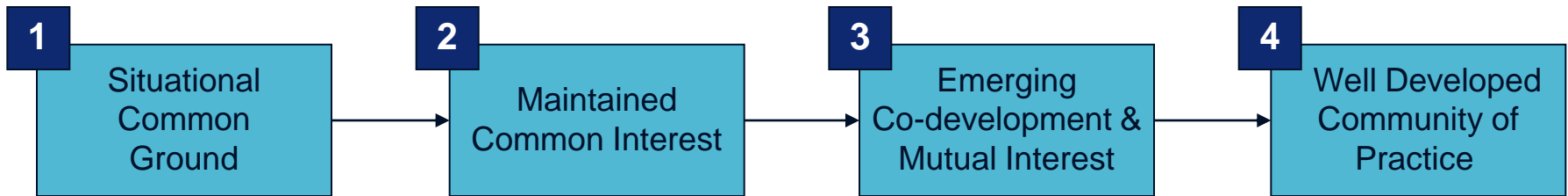
- An affective reaction triggered in the moment by environmental or textual stimuli
- Positive feelings
- Personal relevance
- Intensity
- Often externally supported

- Focused attention and persistence over time
- Sustained through meaningful tasks and personal involvement
- Project-based learning
- Cooperative group work
- One-to-one tutoring

- Predisposition to seek repeated engagement
- Strong personal relevance
- Questioning and self-set challenges
- Effort that feels effortless
- Seeks expert knowledge & support

- More stored knowledge
- More stored value
- Choosing to reengage
- Generating questions and seeking answers
- Resourceful when challenged
- Sustained long-term creative endeavour

Four-Phase Model of Partnership Development



Developing a state of partnership...

Characterised by:

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none">• Connected institutional aims• Collections focus• Content focus• Audience focus• Common vocabulary• Triggered ambition around common interests• Motivated to pursue opportunity | <ul style="list-style-type: none">• Agreed Aims and values• Agreed method of working and coordination• Stakeholder consultations• Emerging content foci• Initial outputs through joint working• Sharing of practice and ideas | <ul style="list-style-type: none">• Co-development model established• Emerging pedagogy• Awareness of individual partner strengths & assets• Desire to see all partners succeed• Extending reach• Ongoing support and capacity building• Research aware | <ul style="list-style-type: none">• Shared pedagogy• Able to embrace a diversity of partners• Emphasis on professional development• Sector leadership• Sector capacity building & reach• Body of knowledge• Impact assessment• Research & Practice |
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